

TEST AVAILABLE COPY

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SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 3/15/2004 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 272-2511.

Date 10/3/05 Serial # 10797647 Priority Application Date _____

Your Name M. Lewis Examiner # _____

AU 2892 Phone 992-1838 Room 5A30

In what format would you like your results? Paper is the default. PAPER DISK EMAIL

If submitting more than one search, please prioritize in order of need. Need before 11/7

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case?

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: _____

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements. _____

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature ☐ Other _____

Secondary Refs ☒ Foreign Patents ☐ _____

Teaching Refs ☐ _____

What is the topic, such as the novelty, motivation, utility, or other specific facets defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Claims 16+22

Problem: See paragraphs 5-7
Solution: " " " 8-14

BCA Package

Staff Use Only

Searcher: Michael Oliver

Searcher Phone: 571-972-8623

Searcher Location: NTIS-BICENCO, JEP-4804

Date Searcher Picked Up: 11/3/05

Rate Completed: 11/4/05

Searcher Prep/Rev Time: 573

Online Time: 93

Type of Search

Keywords ☐

Bibliographic ☒

Abstract ☐

Patent ☐

Other ☐

Other _____

Vendors

Other _____

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[File 2] INSPEC 1898-2005/Oct W5

Set	Items	Description
S1	3719	S BGA? ? OR BALL()GRID()ARRAY???
S2	377026	S NOIS??? OR CROSSTALK???? OR DISTORTION
S3	132	S S1 AND S2
S4	80704	S (THERMAL??? OR HEAT??? OR TEMPERATURE? ?) (3N)CONDUCT?????
S5	5	S S3 AND S4
S6	10	S S3 AND SEMICONDUCTOR?
S7	125	S S3 AND PACKAG????
S8	120	S S7 AND PY<=2004
S9	10	S S6 NOT S5

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[File 2] INSPEC 1898-2005/Oct W4
[File 34] SciSearch(R) Cited Ref Sci 1990-2005/Oct W5
[File 434] SciSearch(R) Cited Ref Sci 1974-1989/Dec
[File 94] JICST-EPlus 1985-2005/Aug W4
[File 99] Wilson Appl. Sci & Tech Abs 1983-2005/Oct
[File 344] Chinese Patents Abs Aug 1985-2005/May
[File 347] JAPIO Nov 1976-2005/Jul(Updated 051102)
[File 350] Derwent WPIX 1963-2005/UD,UM &UP=200570
[File 371] French Patents 1961-2002/BOPI 200209
[File 23] CSA Technology Research Database 1963-2005/Oct
[File 95] TEME-Technology & Management 1989-2005/Sep W4
[File 68] Solid State & Superconductivity Abstracts 1966-2005/Oct
[File 60] ANTE: Abstracts in New Tech & Engineer 1966-2005/Oct
[File 293] Engineered Materials Abstracts 1966-2005/Oct

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Set	Items	Description
S1	121638	S (WRAP???? OR PACKET???? OR PACKAG????) (3N) (SUBSTRATE? ? OR MATERIAL? ? OR SUBSTANCE? ? OR STRATUM OR SUPPORT OR SEMICONDUCTOR? ?)
S2	176817	S (DIELECTRIC? ? OR NONCONDUCT???? OR NON()CONDUCT????) (3N) (FILM??? OR COAT???? OR COVER???? OR SHEET???? OR LAMINA???? OR LAYER????)
S3	152987	S (ELECTRICAL??? OR CONDUCT????) (3N) (LINE? ? OR PATH? ? OR TRACE? ? OR VIA? ? OR PATHWAY? ? OR PATH()WAY? ? OR CHANNEL???? OR PASSAGE? ?)
S4	447130	S (CONDUCT???? OR ELECTRICAL??) (3N) (FILM??? OR COAT???? OR COVER???? OR SHEET???? OR LAMINA???? OR LAYER????)
S5	15190	S ISOLAT??? (3N) (SLOT? ? OR APERTURE? ? OR CAVIT???? OR GAP? ? OR SPACE? ? OR OPEN???? OR HOLE? ? OR PORT? ?)
S6	9233485	S SEGMENT???? OR PART? ? OR AREA? ? OR SECTOR????
S7	51573	S HIGH()FREQUENC???? (3N) (NOISE? ? OR TRANSIENT? ? OR SIGNAL? ? OR SPIKE? ? OR DISTURBANCE? ? OR CLATTER???? OR ACOUSTIC? ? OR AMPLITUDE? ? OR DISTORT????)
S8	547291	S (STRUCTUR??? OR MATERIAL??? OR PHYSICAL OR MECHANICAL) (3N) (INTEGRITY OR STIFFNESS OR STRENGTH OR RIGID???? OR FIRM??? OR NEWTON? ?()PER() (METER? ? OR METRE? ?))
S9	406017	S (THERMAL??? OR HEAT??? OR TEMPERATURE? ?) (3N) CONDUCT????
S10	502675	S (VOLTAGE? ? OR POWER OR ENERGY OR GROUND) (3N) SOURCE? ?
S11	99466	S IC=(H01L-023/495 OR H01L-023/52 OR H01L-021/44 OR H01L-021/48 OR H01L-021/50 OR H01L-023/02 OR H01L-023/04 OR H01L-023/10 OR H01L-023/12 OR H01L-023/48)
S12	31204	S MC=(U11-D03B OR U11-D01A3 OR U11-D01A4 OR U11-D03B2 OR U11-D01A5 OR U11-D03A)
S13	19504	S BGA? ? OR BALL()GRID()ARRAY? ? OR FBGA? ? OR FINE()PITCH()BALL()GRID()ARRAY? ? OR EFBGA? ? OR EXTRA()FINE()PITCH()BALL()GRID()ARRAY? ?
S14	1	S SEGMENT???? (3N) (VOLTAGE()PLANE? ?)
S15	0	S S1 AND S13 AND S2 AND S3 AND S4 AND S5
S16	0	S S1 AND S13 AND S7 AND S8 AND S9
S17	18	S S1 AND S13 AND S7
S18	0	S S17 AND S8
S19	0	S S17 AND S9
S20	0	S S17 AND S5
S21	8	S S17 AND S11
S22	5	S S17 AND S12
S23	23	S S1 AND S13 AND S2 AND S3
S24	0	S S23 AND S7
S25	1	S S23 AND S8
S26	3	S S23 AND S9
S27	17	S S23 AND S11
S28	14	S S23 AND S12
S29	0	S S27 AND S5
S30	2	S S27 AND S6
S31	3	S S28 AND S6
S32	15	S S13 AND S1 AND S10
S33	0	S S32 AND S5
S34	7	S S32 AND S11
S35	4	S S32 AND S12
S36	100	S S1 AND S13 AND S8
S37	0	S S36 AND S7
S38	3	S S36 AND S9
S39	36	S S36 AND S11
S40	22	S S39 AND S12
S41	0	S S40 AND S10
S42	2	S S40 AND S2
S43	0	S S40 AND S5
S44	1	S S22 NOT S21
S45	1	S S25 NOT (S21 OR S22)

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S46	3	S S26 NOT (S21 OR S22 OR S25)
S47	1	S S30 NOT (S21 OR S22 OR S25 OR S26)
S48	2	S S31 NOT (S21 OR S22 OR S25 OR S26 OR S30)
S49	6	S S34 NOT (S21 OR S22 OR S25 OR S26 OR S30 OR S31)
S50	2	S S35 NOT (S21 OR S22 OR S25 OR S26 OR S30 OR S31 OR S34)
S51	3	S S38 NOT (S21 OR S22 OR S25 OR S26 OR S30 OR S31 OR S34 OR S35)
S52	1	S S42 NOT (S21 OR S22 OR S25 OR S26 OR S30 OR S31 OR S34 OR S35 OR S38)

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[File 342] Derwent Patents Citation Indx 1978-05/200569

s pn=us 6268650

S1 1 S PN=US 6268650

map pn/ct=

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1 Select Statement, 1 Search Term(s)
SearchSave SC117

1 SearchSave(s), 1 Search Term(s)

map pn

SearchSave "SC118" stored
3 Select Statements, 22 Search Term(s)
SearchSave SC118

1 SearchSave(s), 22 Search Term(s)

[File 344] Chinese Patents Abs Aug 1985-2005/May
[File 347] JAPIO Nov 1976-2005/Jul(Updated 051102)
[File 350] Derwent WPIX 1963-2005/UD,UM &UP=200570

Set	Items	Description
S1	8	S1:S2

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[File 342] Derwent Patents Citation Indx 1978-05/200569

pn=us 6300165

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SearchSave SC119

1 SearchSave(s), 7 Search Term(s)

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1 SearchSave(s), 57 Search Term(s)

[File 344] Chinese Patents Abs Aug 1985-2005/May
[File 347] JAPIO Nov 1976-2005/Jul(Updated 051102)
[File 350] Derwent WPIX 1963-2005/UD,UM &UP=200570

Set	Items	Description
S1	22	S1:S5 FROM 344, 347, 350
S2	7	S S1 AND (BGA? ? OR BALL())GRID()ARRAY)

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[File 342] Derwent Patents Citation Indx 1978-05/200569

s pn=us 5895967

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SearchSave SC122

1 SearchSave(s), 68 Search Term(s)

[File 344] Chinese Patents Abs Aug 1985-2005/May**[File 347] JAPIO Nov 1976-2005/Jul(Updated 051102)****[File 350] Derwent WPIX 1963-2005/UD,UM &UP=200570**

Set	Items	Description
S1	35	S1:S6 FROM 344, 347, 350
S2	16	S S1 AND (BGA? ? OR BALL()GRID()ARRAY? ?)
S3	1	S S2 AND DIELECTRIC???
S4	14	S S2 AND PACKAG????
S5	0	S S4 AND SLOT? ?
S6	4	S S4 AND (STIFFNESS OR THERMAL()CONDUCTIVI????? OR NOISE? ?)

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[File 342] Derwent Patents Citation Indx 1978-05/200569

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S1 1 S PN=US 6534861

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[File 347] JAPIO Nov 1976-2005/Jul(Updated 051102)

[File 350] Derwent WPIX 1963-2005/UD,UM &UP=200570

Set	Items	Description
S1	22	S1:S5
S2	7	S S1 AND (BGA? ? OR BALL()GRID()ARRAY? ?)

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[File 342] Derwent Patents Citation Indx 1978-05/200569

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[File 344] Chinese Patents Abs Aug 1985-2005/May
[File 347] JAPIO Nov 1976-2005/Jul(Updated 051102)
[File 350] Derwent WPIX 1963-2005/UD,UM &UP=200570

Set	Items	Description
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[File 342] Derwent Patents Citation Indx 1978-05/200569

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S1 1 S PN=US 6300165

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[File 344] Chinese Patents Abs Aug 1985-2005/May

[File 347] JAPIO Nov 1976-2005/Jul(Updated 051102)

[File 350] Derwent WPIX 1963-2005/UD,UM &UP=200570

Set	Items	Description
S1	22	S1:S5 FROM 344, 347, 350
S2	7	S S1 AND (BGA? ? OR BALL())GRID()ARRAY)

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11/4/2005 1:51:57 PM

[File 342] Derwent Patents Citation Indx 1978-05/200569

s pn=us 5895967

S1 1 S.PN=US 5895967

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1 SearchSave(s), 1 Search Term(s)

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[File 344] Chinese Patents Abs Aug 1985-2005/May

[File 347] JAPIO Nov 1976-2005/Jul(Updated 051102)

[File 350] Derwent WPIX 1963-2005/UD,UM &UP=200570

Set	Items	Description
S1	35	S1:S6 FROM 344, 347, 350
S2	16	S S1 AND (BGA? ? OR BALL()GRID()ARRAY? ?)
S3	1	S S2 AND DIELECTRIC???
S4	14	S S2 AND PACKAG????
S5	0	S S4 AND SLOT? ?
S6	4	S S4 AND (STIFFNESS OR THERMAL()CONDUCTIVI????? OR NOISE? ?)

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[File 342] Derwent Patents Citation Indx 1978-05/200569

s pn=us 6534861

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1 SearchSave(s), 7 Search Term(s)

map pn

SearchSave "SC124" stored

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SearchSave SC124

1 SearchSave(s), 57 Search Term(s)

[File 344] Chinese Patents Abs Aug 1985-2005/May

[File 347] JAPIO Nov 1976-2005/Jul(Updated 051102)

[File 350] Derwent WPIX 1963-2005/UD,UM &UP=200570

Set	Items	Description
S1	22	S1:S5
S2	7	S S1 AND (BGA? ? OR BALL()GRID()ARRAY? ?)